

Defense Science & Technology Seminar on Emerging Technologies

Biomimetics

Sponsored by the
Deputy Under Secretary of Defense for
Science & Technology
and the
Director, Army Research Office

Friday, January 8, 1999

Residence Inn By Marriott Pentagon City
550 Army Navy Drive
Arlington, VA 22202
Phone: (703) 413-6630 or 1-800-331-3131



**NEW
LOCATION**

Agenda

0830

**Welcome
Introduction**

Dr. Delores Etter, DUSD (S&T)
Dr. Jim C.I. Chang, ARO

**Biomimetics Overview: Enabling the Technology
Generation After Next**

Dr. Robert Campbell, ARO

**Biomolecular and Biomimetic Nanofabrication
with Calcium and Silicon**

Dr. Daniel Morse, UCSB

**Mimicking the Sense of Smell: Towards an Electronic
Nose Using Arrays of Conducting Polymer Composite
Vapor Sensors**

Dr. Nathan Lewis, Cal Tech

**Biomimetics: From Microstructures to
Mesosystems**

Dr. Alan Rudolph, DARPA

**Far From the Madding Crowd: Digital
Virtues of Biomolecular Solitude**

Dr. Harold Bright, ONR

1015

Q & A

1030

Adjourn

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(Due to space limitations, attendance may be restricted)



OFFICE OF THE DIRECTOR OF
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WASHINGTON, D.C. 20301-3040



January 8, 1999

Welcome to our *third* Defense Science & Technology Seminar on Emerging Technologies!

We are very pleased to see such an impressive response to our announcement. This Seminar is the third in a series of seminars, held the second Friday of each month, on topics of special interest to the Department of Defense.

The goal of these seminars is to promote a technical dialogue between the S&T community and leading researchers in a particular field. Today's presentations will capture only a small portion of the excellent research being conducted throughout the country. Biomimetics encompasses an enormous spectrum, ranging from molecular biomimetics to systems biomimetics. We hope to achieve our goal by *your* attendance and participation today and in follow-up discussions stimulated by this seminar.

Biomimetics was selected for this seminar due to the tremendous opportunities this area provides for future Department of Defense systems. We hope to further enable the development of novel synthetic materials, processes, and sensors through advanced understanding and exploitation of design principles found in Nature.

We hope you will find this seminar informative and productive. Please note our Comment Sheet included in this handout. We welcome your feedback and suggestions on topics for future S&T Seminars.

Sincerely,

Delores M. Etter
Deputy Under Secretary of Defense
(Science & Technology)

James Chang, Director
Army Research Office

